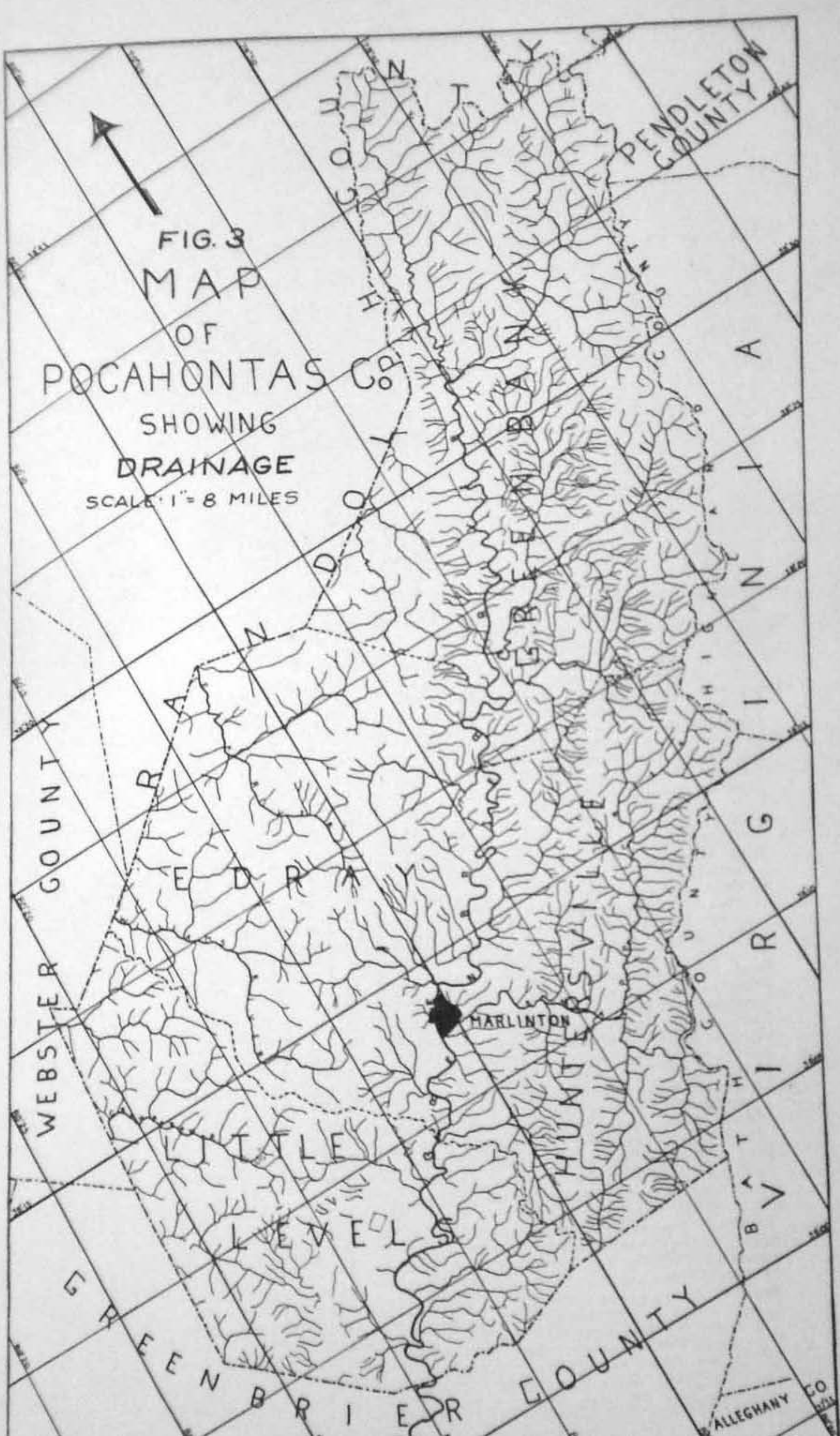
FIG. 3

MAP OF POCAHONTAS Co. SHOWING DRAINAGE

SCALE 1" = 8 MILES

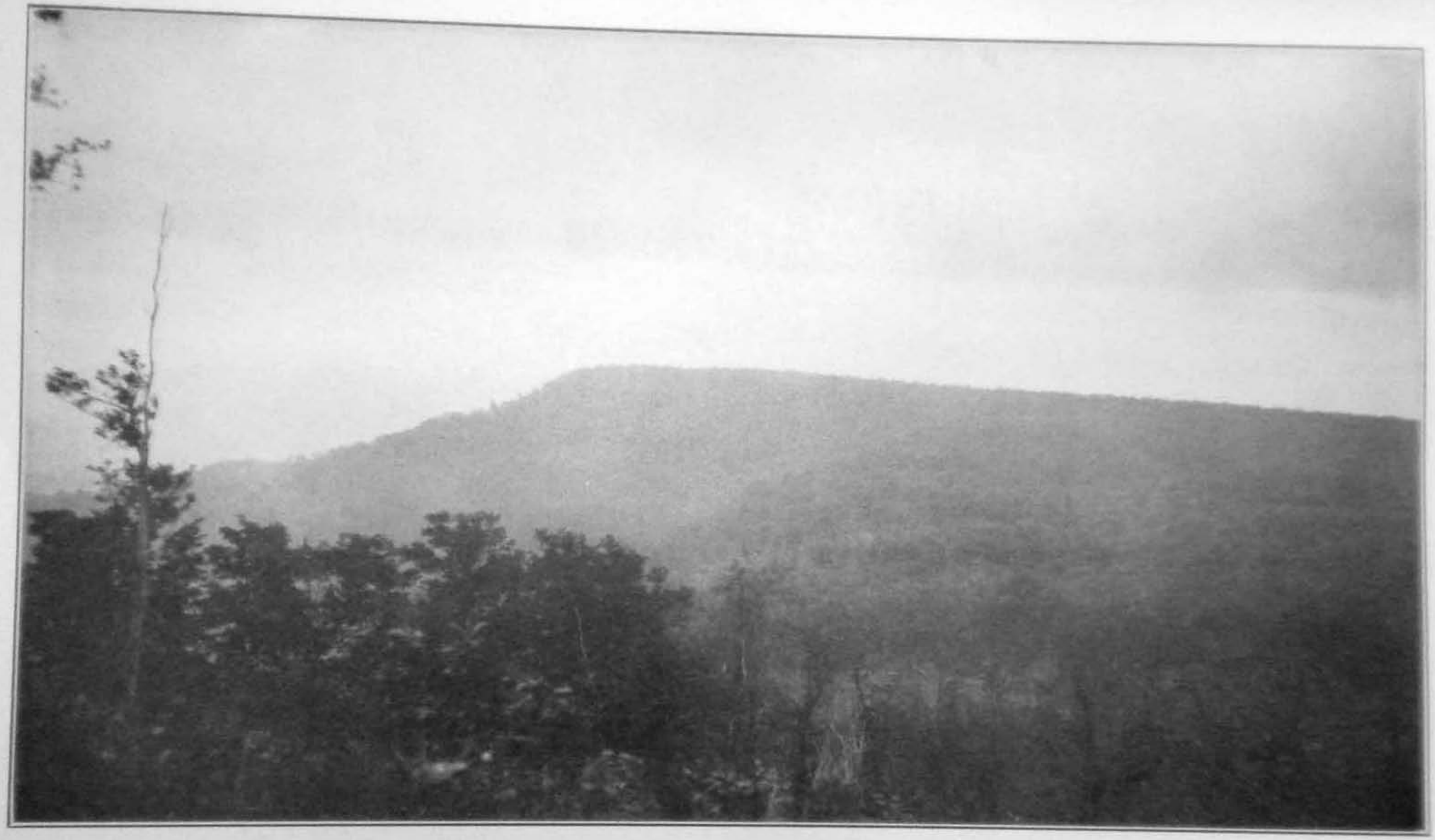

PLATE VII.—View of Cloverlick Mountain southwest from Thorny Flat. The even crest line is formed by the Mauch Chunk sandstones with a northwest dip. (Photo. by Paul H. Price).

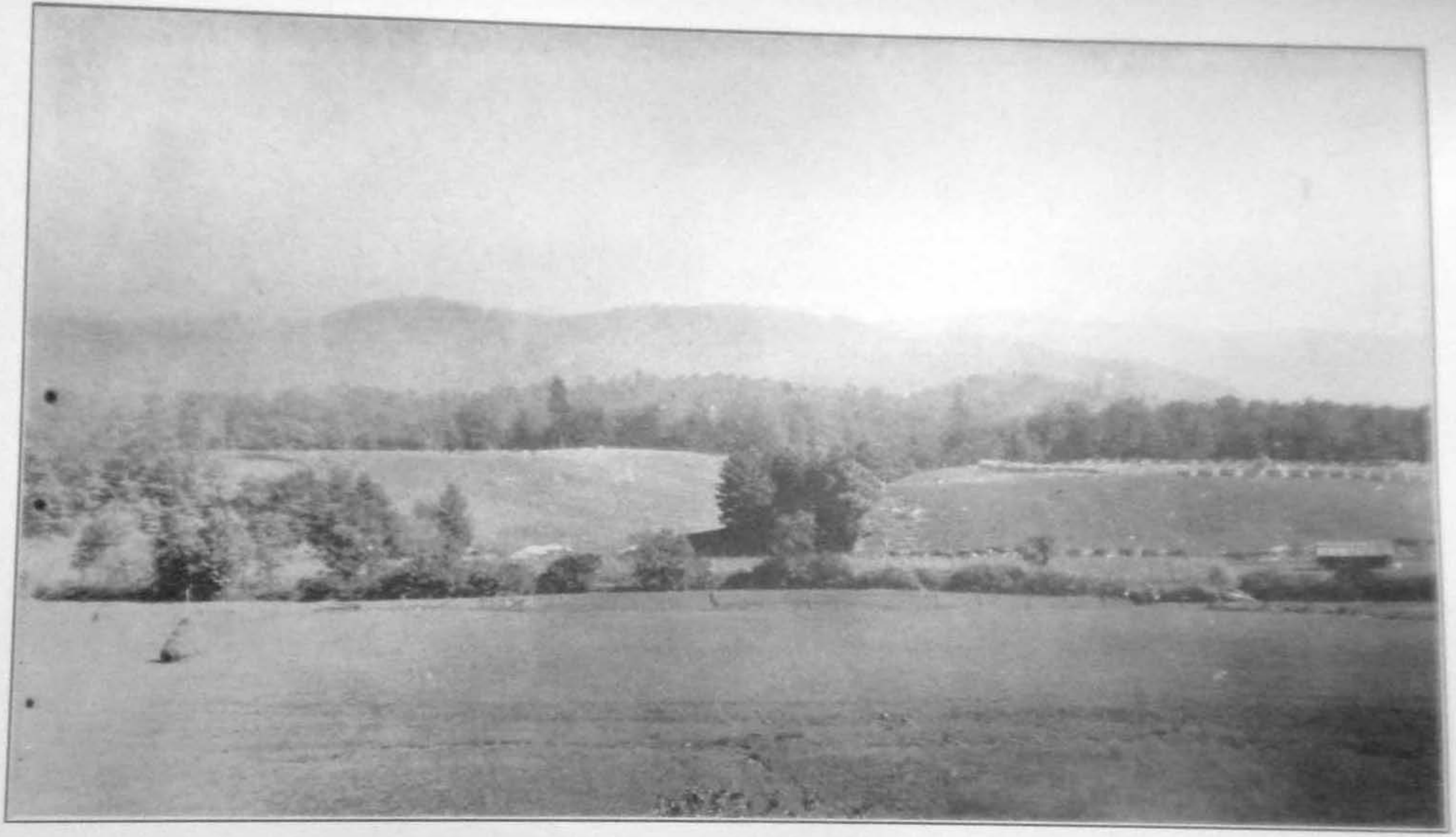

PLATE VIII.—Stream Terraces along Shock Run near the Greenbank-Huntersville District line. (Photo. by Paul H. Price).

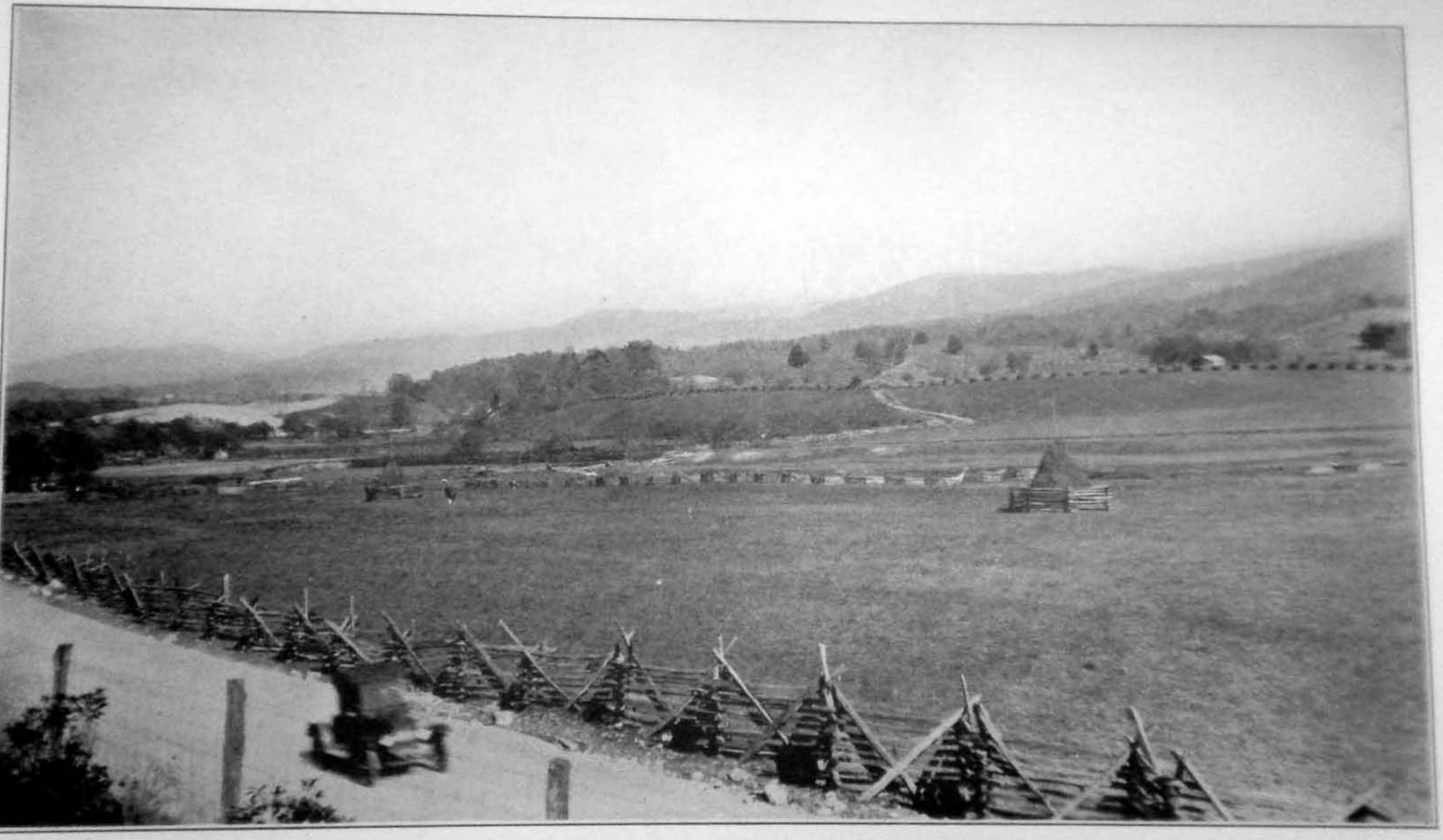

PLATE IX.—Terrace along Shock Run, a tributary to Sitlington Creek east of Mt. Hope Church near Huntersville-Greenbank District line. (Photo. by Paul H. Price).

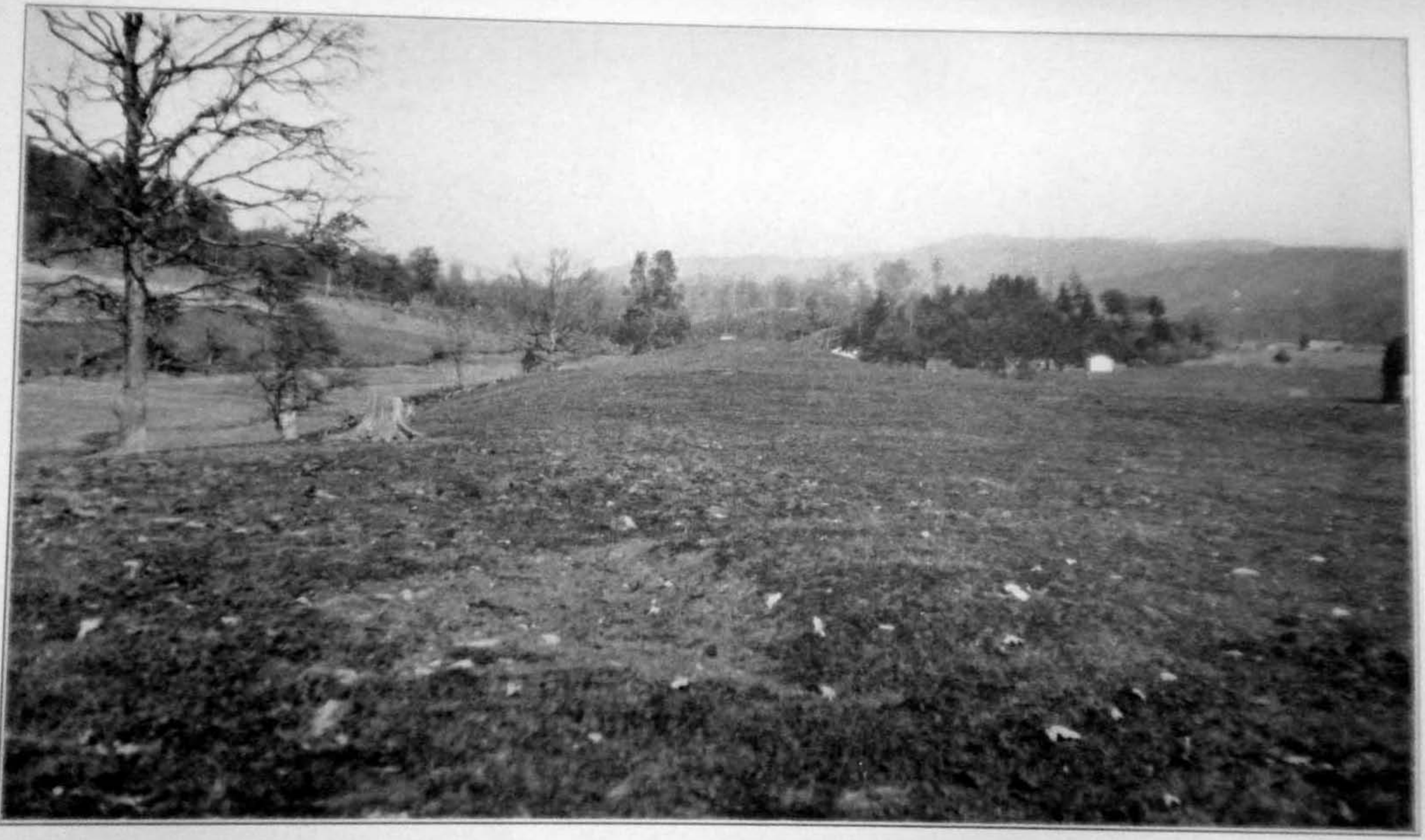

PLATE X.—A long narrow terrace between Sitlington Creek and Thorny Branch. The top is composed of stream sand and rounded boulders. (Photo. by Paul H. Price).

in Trump Run and continues east to the Greenbrier River at Locust Station. It is a short run with a considerable volume of water with a slight fall. This run is a continuation of Hills Creek which sinks beneath Droop Mountain on the opposite side. It was reported that coloring matter had been placed in Hills Creek and found to emerge at the head of Locust Creek. This report was not verified in the field but is undoubtedly the truth. Locust Creek has a drainage area of 9.98 square miles.

Hills Creek.—Hills Creek heads high up on Kennison Mountain of Yew Mountains and flows west for some three miles where it is joined by a small branch and turns south to form a series of beautiful falls in "Falls of Hills Creek". See Plate XXII. It continues southeast, being joined by smaller branches, to a point 1½ miles southeast of Lobelia where it sinks into the Greenbrier Limestone beneath Droop Mountain (See description of Locust Creek). It has a total length of 8.4 miles with an air-line distance of 5 miles or a ratio of 1.68, and its drainage area is 31.6 square miles.

Bruffey Creek.—Bruffey Creek is a small stream with its source west of Viney Mountain and flows south where it is joined by Cave Run and sinks beneath the surface one mile southeast of Lobelia.

Oldham Run.—Oldham Run rises west of Burr Valley and flows in a westward direction, south of Pond Ridge, and is joined by Perry and Nigh Gap Runs, and enters the Greenbrier River one-half mile due east of Locust Station.

Laurel Run.—Laurel Run heads high up on Beaver Lick Mountain northeast of Burr Post-Office and with several unnamed tributaries forms the drainage of Burr Valley. It then continues west to a point one-half mile north of Denmar where it empties into the Greenbrier River. It has a total length of 8.2 miles with a fall of 1,220 feet or at the rate of 148.7 feet per mile. It has a drainage area of 13.38 square miles.

Mill Run.—Mill Run is a small stream which heads high up against an unnamed ridge southeast of Kennison and flows northwest, entering the river at the latter point.

Rock Run.—Rock Run is another small branch with a single tributary emptying into Greenbrier River from the east one mile above Kennison.

Island Lick Run.—Island Lick Run empties into the river from the east midway between Kennison and Seebert, having its source high up on the west side of Pyle Mountain. It has a drainage area of 5.12 square miles.

Stamping Creek.—Stamping Creek has its source in three small branches high up on the east side of Cranberry Mountain. Its tributaries are Blue Lick Run, Tilda Fork, and other unnamed branches. It flows in a southeastward direction, occasionally sinking beneath the limestone but rising again near Mill Point where it is used intermittently to turn overshot wheels to grind feed and flour and to propel a small turbine generator. It enters Greenbrier River one-half mile north of Seebert. It has a meandering length of 6.8 miles with a total fall of 1,710 feet or at the rate of 251.5 feet per mile. Its drainage area is 15.8 square miles.

Stevens Hole Run.—Stevens Hole Run is a small stream of little importance but of considerable local interest. It has its source in a limestone spring just west of the State highway 0.7 mile northeast of Mill Point and flows in a southward direction to the Greenbrier River one mile northeast of Seebert. It has a total length of 2½ miles with a drainage area of 3.57 square miles.

Chicken House Run.—Chicken House Run is another minor tributary of the Greenbrier River joining the latter stream one-half mile south of Watoga. It heads on the west slope of Pyle Mountain and flows almost due west for a distance of 2.8 miles. Its drainage area is 2.42 square miles.

Beaver Creek.—Beaver Creek is made up of two branches with several smaller tributaries roughly forming a **Y**, the southern branch heading well up on the west side of Beaver Lick Mountain with the northern branch heading on the east side of Buckley Mountain, and the two uniting to cut a pass between Pyle and Buckley Mountains to join the Greenbrier River at Violet. The old county road from Hillsboro to Huntersville followed along this stream when the latter town was the county-seat. Beaver Creek has a drainage area of 16.27 square miles.

Improvement Lick Run.—This is a small stream with a length of 3.6 miles, having its source near the top of Buckley Mountain and flowing westward to join Greenbrier River one mile northeast of Violet.

Swago Creek.—Swago Creek is a stream with a considerable volume of water originating largely from springs that emerge from the Greenbrier and Mauch Chunk Series. It is composed of the following tributaries: McClintock Run, Overholt Run, Dry Creek, and Buck Run. This network of streams has cut a prominent cove between the ranges of Rodgers Mountain, Swago Mountain, and Spruce Flats. Swago Creek enters the Greenbrier River at Buckeye, and has a drainage area of 12.92 square miles.

Monday Lick and Sunday Lick Runs.—These two small streams head near the top of Buckley Mountain and flow in a westward direction to join the Greenbrier River about 800 feet apart one mile south of Stillwell.

Stillhouse Run.—Another run of small importance heading near the north end of Buckley Mountain is Stillhouse Run. It is the first stream south of Knapp Creek and enters the Greenbrier River at Stillwell. Its total length is 3.1 miles with a drainage area of 2.6 square miles.

Knapp Creek.—Knapp Creek is the Greenbrier River's largest and most important tributary in Pocahontas County. It has its source close the State line near the top of Allegheny Mountain five miles northeast of Frost. It flows in a southwest direction across the Upper Devonian sandstones and shales to Frost where it is forced to swing to the south because of the Browns-Michael Mountain uplift. From this point it follows the less resistant Middle Devonian shales to Minnehaha Springs where it is joined by Laurel Creek and its tributaries from an opposite direction and swings northwest to cut a deep gorge through these ranges to join the Greenbrier River at Marlinton. It has a total length of 26.8 miles with an air-line distance of 17.76 miles, or a ratio of 1.51. It has a total fall of 1,560 feet or at the rate of 58.2 feet per mile, with a drainage area of 109.96 square miles.

Marlin Run.—This is a small run of minor importance heading near the top of Marlin Mountain and flowing due west for a distance of 2.7 miles, through the town of Marlinton to join Knapp Creek one-half mile above its mouth. It has a total fall of 630 feet with a drainage area of 1.56 square miles.

Spice Run.—(See table of stream data).

Cummins Creek.—Cummins Creek heads between two Medina folds near the top of Brushy Mountain. It flows practically due north for a distance of 6 miles to join Knapp Creek near Huntersville. It has a drainage area of 11 square miles.

Browns Creek.—Browns Creek has its source in several smaller branches in the vicinity of "The Horse Ridge" on Browns Mountain. Near the head of this stream is a fine large spring emanating from near the contact of the Helderberg-Bossardville limestones on the farm of Peter McCarty (See springs under Mineral Waters). This stream flows southwest along the Middle Devonian shales for a distance of 3½ miles to join Knapp Creek near Huntersville. It has a drainage area of 10 square miles.

Barclay Run.—(See table of stream data).

Laurel Creek.—Laurel Creek with branches in Camp Hollow, Douthat Creek, Cochran Creek, Lockridge Run, and many smaller branches, is Knapp Creek's largest tributary from the standpoint of volume. Laurel Creek has its source on Allegheny Mountain only 3.6 miles (air-line distance) from its mouth but flows in a southerly direction to Rimel where it is joined by Cochran Creek, with its numerous tributaries from the south. Thence it flows northwest, cutting a gorge across the north end of Middle Mountain and is joined by Douthat Creek, also from the south, one mile south of Minnehaha Springs, where it enters Knapp Creek. It has a total drainage area of 30.68 square miles.

Ruckman, Guy, and Mill Runs.—These are small tributaries of Knapp Creek from Browns Mountain on the west. (See table of stream data).

Moore Run.—Moore Run, with small feeders in McLaughlin and Sharp Hollows, is a minor stream from a source near the top of Allegheny Mountain which empties into Knapp Creek two miles southwest of Frost.

Sugarcamp and Bird Runs.—(See table of stream data).

Price Run.—Price Run has its source in a large limestone spring emanating from the east side of Stony Creek Mountain and west of Jericho Flat and Marlinton. No figures are available as to the volume of this spring but as pointed out by Dr. James Price of Marlinton it would be sufficient to form a beautiful artificial lake if piped to a natural depression on Jericho Flat. This run has a meandering length of 1.1 miles with a total fall of 285 feet or at the rate of 259 feet per mile. It has a surface drainage area of 1.01 square miles.

Stony Creek.—Stony Creek empties into the Greenbrier River 1.1 miles north of the river bridge at Marlinton. It has its source 0.8 mile due west of Woodrow and is joined by several tributaries of lesser importance in Sharp Run, Pigeon Run, Dry Creek, Indian Draft, and other smaller unnamed branches, a large part of the water coming from the several large limestone springs (McLaughlin) along Dry Creek east of Onoto. Stony Creek has a total length of 6.6 miles with a fall of 1,300 feet or at the rate of 196.9 feet per mile. With its tributaries it has a drainage area of 22.33 square miles. A part of the water of Stony Creek is used to propel a turbine for the Geiger Mill.

Halfway Run.—This is a small stream of minor importance heading near the top of Marlin Mountain and flowing in practically a straight gorge northwest to the Greenbrier River at Knapp. It has a total length of 2.2 miles with a drainage area of 1.35 square miles.

Brush Lick Run.—Brush Lick Run heads 0.8 mile southeast of Warwick. It is joined by Sideling Run, a stream of greater length, 0.6 mile east of August where the parent stream empties into the Greenbrier River. It has a drainage area of 4.73 square miles.

Lewis Lick Run.—Lewis Lick Run has its source in three forks high up on the south side of Gay Knob and flows south for a distance of 4.6 miles where it joins the Greenbrier River at August. It has a total fall of 1,105 feet or at the rate of 240.2 feet per mile and a drainage area of 3.63 square miles.

Thorny Creek.—Thorny Creek, with many small tributaries, heads high up on the southern end of Michael Mountain. It is joined from the west by Little Thorny Creek and flows southwest to a point 0.8 mile southwest of Dilleys Mill where it flows west for a distance of $1\frac{1}{4}$ miles, cutting a deep gorge between Thorny Creek and Marlin Mountains, thence in a well-entrenched meander in a southwest direction to Greenbrier River one-half mile northeast of August. Thorny Creek has a total length of 9.6 miles with a drainage area of 19.34 square miles.

Laurel Run.—(Edray District; See table of stream data).

Cloverlick Creek.—This stream has its source in two forks heading between Gay Knob and Cloverlick Mountain, the two uniting to flow north for some four miles where it swings to the east forming a semicircle around the northern end of Cloverlick Mountain. **Glade Run,** a tributary to Cloverlick Creek, joins the latter stream a few feet from its mouth but undoubtedly at an earlier date it was a tributary to Greenbrier River about 0.8 mile northwest of Clover Lick when the river flowed across the now abandoned channel that surrounds the knoll one mile west of Clover Lick.

This creek has a total length of 9.8 miles with an air-line length of 5.3 miles or a ratio of 1.84. It has a total fall of 1,580 feet, or at the rate of 161.2 feet per mile, and a drainage area of 18.17 square miles.

Laurel Run.—Laurel Run, heading 3 miles due east of Clover Lick, flows in practically a straight line to the latter place cutting a deep pass between Thorny Creek and Thomas Mountains. It has a drainage area of 3.58 square miles.

Big, Elklick, and Woods Runs.—(See table of stream data).

Sitlington Creek.—Sitlington Creek, one of the important tributaries to the Greenbrier River in Pocahontas County, has its source in **Galfred Run** high up on Allegheny Mountain. It flows in a general southwest direction to Michael Mountain where it is joined by **Shock Run,** the two uniting to cut a wide pass through this range at Dunmore, and is joined again by **Thomas Creek** $1\frac{1}{2}$ miles east of Sitlington where the parent stream empties into the Greenbrier River. Other tributaries are Moore Run, Gum Branch, Jakes Run, Stony Run, and Left Prong. Sitlington Creek has a total length of 14.5 miles with a fall of 1,980 feet, or at the rate of 136.5 feet per mile. It has a drainage area of 51.06 square miles

Moses Spring Run.—(See table of stream data).

Deer Creek.—Deer Creek, the second largest tributary of the Greenbrier River in Pocahontas County, heads in three small branches that cut deep V-shaped valleys on the west side of Frank Mountain. Flowing in a southwest direction it has, with its tributaries, cut a broad level valley in the vicinity of Green Bank and Arbovale. It continues in a southwest direction, cutting a deep gorge, including a beautiful ox-bow one mile west of Deer Creek where it joins the river. Its tributaries are: North Fork, Rosen Run, Sutton Run, Tacker Fork, Black Run, Elleber Run, Griffin Run, Hospital Run, Riley Run, Duncan Run, Trimble Run, Buffalo Run, and Saulsbury Run. (See table of stream data). Deer Creek has a total length of 17.4 miles with a drainage area of 68.03 square miles.

Leatherbark Run.—Leatherbark Run has its source high up on the west side of Back Allegheny Mountain near Bald Knob and flows in a southwest direction to a point one-fourth mile east of Shavers Fork where it swings southeast, cutting a deep niche in Back Allegheny Mountain and joining the Greenbrier River at Cass. It has a meandering length of 5.15 miles with a total fall of 1,900 feet or at the rate of 368.9 feet per mile. Its drainage area is 6.74 square miles.

Deever, Cup, Wanless, and Trout Runs.—These are small runs heading high up on the east side of Back Allegheny Mountain and flowing with a rapid fall across the Mauch Chunk, Greenbrier, and Pocono Series to the Greenbrier River. (See table of stream data).

Allegheny Run.—Allegheny Run heads near the base of the Pottsville Series on the west side of Back Allegheny Mountain and flows southeast with rapid fall to the Greenbrier River at Hosterman. It has a length of 2.7 miles with a total fall of 1,975 feet or at the rate of 731.4 feet per mile. Its drainage area is 3.44 square miles.

Brush Run.—Brush Run heads just west of the Staunton and Parkersburg Pike on Frank Mountain and flows in a general westward course, cutting a pass between Little Mountain and Sandy Ridge to join the Greenbrier River one-half mile south of Nottingham P. O. (Boyer Station). It has a meandering length of 6.7 miles with a fall of 770 feet or at the rate of 114.9 feet per mile. It has a drainage area of 7.4 square miles.

East Fork of Greenbrier River.—East Fork, as previously stated under the description of Greenbrier River, heads in Blister Swamp, in the extreme northeastern end of the county and flows in a southwest direction to Thornwood P. O. (Winterburn Station). Here it swings to the west making a wide level valley between the latter town and Durbin where it joins the West Fork. Upon the flood-plain and terraces along this valley the towns of Durbin, Frank, Bartow, and Thornwood have been built. From Thornwood to its source Little River, Buffalo Fork, Poca Run, Abe Run, and Bennett Run flow into the East Fork from Allegheny Mountain on the east, while Reservoir Hollow, Gum Cabin Hollow, Fivemile Hollow, Bearwallow, Campbell, and Mullenax Runs join it from Burner Mountain on the west. Johns Run, heading on the southern end of Burner Mountain, flows south to join the river at Frank. The East Fork of Greenbrier River has a length of 18.8 miles with a drainage area of 69.94 square miles. (For data on tributaries of East Fork, see table of stream data).

West Fork of Greenbrier River.—West Fork of Greenbrier River heads at the Pocahontas-Randolph County line, east of Shavers Mountain and parallels the east side of this mountain in a well-entrenched meander to Durbin where it joins with East Fork to form Greenbrier River proper. From Shavers Mountain on the west it receives a few small unnamed tributaries. On the east it receives Mountain Lick Creek and Little River with its tributaries from the west side of Burner Mountain, and Mill, Gertrude, Elklick, Fox, Mikes, and Snorting Lick Runs from the west side of Middle Mountain. West Fork of Greenbrier River has a length of 16.9 miles with a drainage area of 62.62 square miles. (For data on tributaries, see table of stream data).

Anthony Creek.—Anthony Creek, the largest tributary of

Greenbrier River, has its source in Greenbrier County near the Pocahontas County line and the greater part of its drainage in Greenbrier County. It heads on Allegheny Mountain in the extreme northeast corner of Greenbrier County, but flows northwest into Pocahontas County for a distance of 1½ miles when it swings southwest to enter Greenbrier again and continues in this direction to Alvon. Here it swings more to the west cutting a deep gorge between Beaver Lick and Greenbrier Mountains to join the Greenbrier River at Anthony. Its largest tributaries are Little Creek, Meadow Creek, and North Fork of Anthony Creek. It has a total length of 28.65 miles with a fall of 1,470 feet or at the rate of 51.3 feet per mile. It has a drainage area of 146.93 square miles. Only 3.7 miles of its length is in Pocahontas County with a drainage area of 6.52 square miles.

North Fork of Anthony Creek.—North Fork of Anthony Creek has the greater part of its drainage in Greenbrier County but heads on Beaver Lick Mountain in Pocahontas County. It flows in a southwest direction between Beaver Lick and Middle Mountains to a point 1½ miles from its mouth where it swings due south to terminate the latter mountain and join Anthony Creek at Neola. It has a total length of 12.45 miles with a drainage area of 22.77 square miles.

Gauley River.—The drainage of Gauley River is of minor importance to Pocahontas County except that it has its source within the county limits, in three branches—North, Middle, and South Forks—high up on the west side of Yew and Gauley Mountains. Flowing west across the acute angle of the southern end of Randolph County these three forks unite at Three Forks of Gauley at the Randolph-Webster County line and there the main Gauley continues in a general southwest direction, draining, with its tributaries, all of Webster County south of Elk River. It continues, well entrenched, across Webster and Nicholas Counties to unite with New River at Gauley Bridge, Fayette County, to form the Great Kanawha. Its principal tributaries within the area of this report are Cherry, Cranberry, and Williams Rivers. Gauley River has a total length of 104 miles with an air-line

Greenbrier River, has its source in Greenbrier County near the Pocahontas County line and the greater part of its drainage in Greenbrier County. It heads on Allegheny Mountain in the extreme northeast corner of Greenbrier County, but flows northwest into Pocahontas County for a distance of 1½ miles when it swings southwest to enter Greenbrier again and continues in this direction to Alvon. Here it swings more to the west cutting a deep gorge between Beaver Lick and Greenbrier Mountains to join the Greenbrier River at Anthony. Its largest tributaries are Little Creek, Meadow Creek, and North Fork of Anthony Creek. It has a total length of 28.65 miles with a fall of 1,470 feet or at the rate of 51.3 feet per mile. It has a drainage area of 146.93 square miles. Only 3.7 miles of its length is in Pocahontas County with a drainage area of 6.52 square miles.

North Fork of Anthony Creek.—North Fork of Anthony Creek has the greater part of its drainage in Greenbrier County but heads on Beaver Lick Mountain in Pocahontas County. It flows in a southwest direction between Beaver Lick and Middle Mountains to a point 1½ miles from its mouth where it swings due south to terminate the latter mountain and join Anthony Creek at Neola. It has a total length of 12.45 miles with a drainage area of 22.77 square miles.

Gauley River.—The drainage of Gauley River is of minor importance to Pocahontas County except that it has its source within the county limits, in three branches—North, Middle, and South Forks—high up on the west side of Yew and Gauley Mountains. Flowing west across the acute angle of the southern end of Randolph County these three forks unite at Three Forks of Gauley at the Randolph-Webster County line and there the main Gauley continues in a general southwest direction, draining, with its tributaries, all of Webster County south of Elk River. It continues, well entrenched, across Webster and Nicholas Counties to unite with New River at Gauley Bridge, Fayette County, to form the Great Kanawha. Its principal tributaries within the area of this report are Cherry, Cranberry, and Williams Rivers. Gauley River has a total length of 104 miles with an air-line distance of 59.2 miles or at the ratio of 1.75 and a total fall of 3,352 feet or at the average rate of 32.23 feet per mile. According to Reger[11] it has a drainage area of 1350.37 square miles.

From July 3, 1908, to September 30, 1916, the United States Geological Survey and the State Survey in conjunction maintained a gaging station on Gauley River at Allingdale, near the line between Nicholas and Webster Counties, the records of which were published in the Webster County Report and were taken from Water-Supply Papers Nos. 243, 263, 283, 303, 323, 353, 383, 403, and 433 of the former Survey.

Cherry River.—Cherry River heads in two forks, North and South, in southwestern Pocahontas County and flows west across northern Greenbrier County into Nicholas to join Gauley River at Curtin. (See table of stream data for Nicholas County).[12]

Cranberry River.—Cranberry River heads 7 miles west of Marlinton at the union of Cranberry and Black Mountains of the Yew range. It has a rapid fall from its source to the glades where it flows sluggishly across the latter for some two miles. It continues northwestward into Webster County, crossing the county line at an elevation of 2,985 feet, and flows with the same general course for 10 miles, where it swings abruptly to the southwest, and crosses into Nicholas County to join Gauley River at Cranberry Station. It has a total length of 32.35 miles with a fall of 2,035 feet or at the rate of 62.9 feet per mile. It has a drainage area of 74.08 square miles. The greater part of its watershed is covered with forest, a large part of which has been cut over in recent years. Except at Cranberry Glades the stream is swift and shallow. Its principal tributaries in Pocahontas County are Tumbling Rock Run, North Fork, and Charles Creek.

Dogway Fork.—Dogway Fork heads on the south side of Kennison Mountain near the summit and flows in a general northwest direction into Webster County to join Cranberry River 1½ miles north of Dogway. It has a total length of

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[11] David B. Reger, Webster County Report, W. Va. Geol. Sur., p. 24; 1920.

[12] David B. Reger, Nicholas County Report, W. Va. Geol. Sur., pp. 22-24; 1921.

8.2 miles with a fall of 1,435 feet or at the rate of 175 feet per mile. Its drainage area is 9.73 square miles.

Birchlog and Tumbling Rock Runs.—(See table of stream data).

North Fork.—The North Fork of Cranberry River has its source on the west side of Black Mountain one mile northwest of Barlow Top. It flows in a general westerly course for 5.9 miles where it empties into Cranberry River. Near its mouth this stream has for its bed the Princeton Conglomerate for over one-half mile. (See Plate XX). It has a drainage area of 9.83 square miles. Its tributaries are Hunting Run, Cashcamp Run, and Left Fork.

Red Run and Little Branch.—Streams of minor importance. (See table of stream data).

Charles Creek.—Charles Creek, a small stream, heads just east of Blue Knob on the southern end of Kennison Mountain. It flows north for 2.35 miles and joins Cranberry River near the center of the Cranberry Glades. Its drainage area is 3.22 square miles.

Williams River.—Williams River heads 3½ miles west of Marlinton on the west side of Day and Swago Mountains with an elevation of 3,890 feet. It flows northward, cutting a deep precipitous gorge along the east side of Black Mountain, to the mouth of Laurel Creek where it turns northwestward, then continues its gorge-like valley into Webster County, with an elevation of 2,753 feet at the county line, and empties into Gauley River three miles southeast of Cowen, with an elevation of 2,155 feet, making a total fall of 1,735 feet from its source to mouth. Its length is 15.6 miles in Pocahontas County and 17.6 miles in Webster County, or a total of 33.2 miles. Its drainage area is 130.63 square miles, most of which was covered with a dense and mostly virgin forest growth until the last few years. Throughout its entire length it is a comparatively swift and shallow stream with only occasional small stretches of bottom land. Other than the temporary population of lumbermen, there are very few families living on its watershed. Its principal tributaries in Pocahontas County are Laurel Creek, Little Laurel Creek, Sugar Creek, Tea Creek, Kins Creek, and Bannock Shoals Run.

Middle Fork.—Middle Fork has its source in several small branches on the west side of Black Mountain, one of which has an elevation of 4,290 feet. The main branch flows in a northwest direction into Webster County to join Williams River at Three Forks of Williams River with an elevation of 2,350 feet, making a total fall of 1,940 feet or at the rate of 192.1 feet per mile. It has a drainage area of 27.27 square miles, all of which is covered with a dense forest growth, but recently cut over, with only one or two families living on its watershed. Its tributaries are Little Beechy Run, Beechy Run, Laurelly Branch, Hell for Certain Branch, Coal Run, and McClintock Run. Its total length is 10.1 miles.

Elk River.—(For complete description see Webster County Report).[13] Elk River, while of minor importance to Pocahontas County, has its source in Old Field Fork in this county 5½ miles north of Marlinton with an elevation of 3,500 feet. It flows northward for 13.6 miles in Pocahontas and across the southern extension of Randolph County. Near the Randolph-Webster line it veers sharply to a course south of west to four miles west of Webster Springs, where it turns northwest and so continues until it crosses the Webster-Braxton County line near Centralia. From here it flows to the west to Sutton where it again turns to the southwest and empties into the Great Kanawha River at Charleston. Including its tributaries of Dry Fork, Old Field Fork, and Big Spring Fork, it has a drainage area in Pocahontas County of 75.64 square miles. Except near its source, where it flows across the Mauch Chunk Series, its entire course in Pocahontas is across the calcareous Greenbrier Series where it occasionally sinks beneath the surface to appear again farther down the valley.

Tygart River.—(For description and data on Tygart River see Barbour, Upshur and Western Portion of Randolph County Report). Tygart River, which forms the principal drainage basin of Barbour and a large portion of Upshur and

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[13] David B. Reger, Webster County Report, W. Va. Geol. Sur., pp. 26-37; 1920.

Randolph, has its source one mile west of Spruce in Pocahontas County with an elevation of approximately 4,000 feet. After flowing west for two miles it enters Randolph County where it flows in a general northward direction across Randolph, Barbour, and Taylor to join the West Fork at Fairmont, Marion County, to form the Monongahela. Its length in Pocahontas County is 2.2 miles with a drainage area of less than three square miles.

Shavers Fork.—Shavers Fork of Cheat River heads on the south end of Back Allegheny and Cheat Mountains with an elevation of 4,600 feet and flows northward through the basin between these mountains into Randolph County. It continues across the latter county and into Tucker County where it is joined by Dry Fork at Parsons to form Cheat River proper. Throughout its entire course it follows rough topography, mostly that of the Pottsville and Mauch Chunk Series, and hence is a region of small development with few towns along its watershed. Its tributaries in Pocahontas County are Black and Rocky Runs, and First and Second Forks.

MINOR DRAINAGE CHANGES.

In view of the network of drainage basins in Pocahontas there are few examples of evident changes in drainage. One example, however, is found at Clover Lick. It is the writer's interpretation that Greenbrier River formerly circled the knoll west of Clover Lick but later captured itself by cutting a channel across the point where the town of Clover Lick now stands. This is evidenced by the old river channel surrounding this knoll but now occupied, in part, by Cloverlick Creek and Glade Run.

A somewhat similar condition is presented at Wesley Chapel four miles northeast of Dunmore. The region is known locally as "Glade Hill". It is the writer's interpretation that what is now Thorny Branch, flowing into Sitlington Creek one-fourth mile east of Hillside School, originally flowed through the low gap at Wesley Chapel. A beautiful long narrow terrace now divides the two streams. (See Plate X).

IMMINENT CAPTURE.

A fine example of imminent capture can be seen in Shavers Fork of Cheat River four miles northwest of Cass. The stream with a gradual fall flows leisurely along the surface of an old plateau, while Leatherbark Run, a tributary of the Greenbrier River drainage, is rapidly eating its way into the plateau scarp. Leatherbark Run has a rapid fall with an average of 368.9 feet per mile, with the upper end falling more than 1,000 feet in less than 1½ miles. At the present time it is within 1,060 feet of Shavers Fork and in the near future, geologically speaking, the upper two miles of Shavers Fork will become a part of the Greenbrier River drainage, rapidly descending the falls, due to forthcoming capture, into the deep gorge which well marks the sharp elbow of capture.

Deer Creek.—A beautiful double ox-bow loop can be seen one mile east of Cass where Deer Creek in an entrenched meander flows nearly 1½ miles to get 0.1 mile nearer its mouth. In the early geologic future this stream will cut across the narrow neck and capture itself to eliminate the roundabout meander.

MINOR TOPOGRAPHIC FEATURES.

Limestone Sinks and Caverns.—Sink-holes and caves are intimately associated. The former are surface features readily recognized, while the latter are entirely subterranean and produce no noticeable effect upon the surface configuration of the surrounding country. Sink-holes vary as to size, shape, and depth, but are ordinarily cave-shaped, and unless folded in, drain out through an opening in the lowest part. These sinks may be formed either by openings left by soil washing through crevices, or the large ones, particularly with steep walls, may be produced by the collapse of the roof of an underlying cavern. In either case they are connected with underground channels which are called caves.

In the vicinity of Hillsboro minor sinks are noticeable sinks and caverns. The entire drainages of Hills Creek and Bruffey Creek descend into a large sink to pass through an underground channel beneath Droop Mountain.

Known, caverns in Pocahontas County are, Saltpeter Cave at the head of Swago Creek, Overholt Blowing Cave near McClintock's mill, and Sneadeger Cave west of Droop Mountain near the Greenbrier County line. The latter cave was the only one explored by the writer. In company with Calvin W. Price, Jos. McNeel, and Henry McNeel a trip was made into this cave. It is plainly an abandoned stream channel, but still active in rainy weather, with the bottom littered with sand, gravel, boulders, tree branches, and logs. The elevation at the mouth is 2,450 feet, while at the end, one-half mile in, where the opening was too small to penetrate, the elevation is 2,315 feet, making a fall of 135 feet. An occasional large stalactite or stalagmite was encountered but as a whole it is almost without these formations. One large room measured 100 feet wide by 300 feet long with a height of 25 feet. Several of the county's large limestone springs emerge from underground channels.